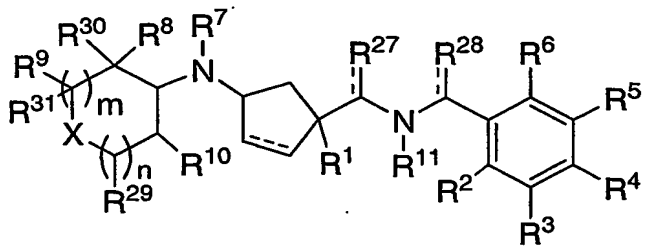
WHAT IS CLAIMED IS:

1. A compound of the formula I:



I

wherein:

X is selected from the group consisting of:

-O-, -$NR^{20}$-, -S-, -SO-, -$SO_2$-, and -$CR^{21}R^{22}$-, -$NSO_2R^{20}$-, -$NCOR^{20}$-, -$NCO_2R^{20}$-, -$CR^{21}CO_2R^{20}$-, -$CR^{21}OCOR^{20}$-, -CO-, -O-$C(CH_3)_2$-O-,

where $R^{20}$ is selected from: hydrogen, $C_{1-6}$ alkyl, benzyl, phenyl, $C_{3-6}$ cycloalkyl where the alkyl, phenyl, benzyl, and cycloalkyl groups can be unsubstituted or substituted with 1-3 substituents where the substituents are independently selected from: halo, hydroxy, $C_{1-3}$alkyl, $C_{1-3}$alkoxy, -$CO_2$H, -$CO_2$-$C_{1-6}$ alkyl, and trifluoromethyl,

where $R^{21}$ and $R^{22}$ are independently selected from: hydrogen, hydroxy, $C_{1-6}$ alkyl, -O-$C_{1-6}$alkyl, benzyl, phenyl, $C_{3-6}$ cycloalkyl where the alkyl, phenyl, benzyl, and cycloalkyl groups can be unsubstituted or substituted with 1-3 substituents where the substituents are independently selected from: halo, hydroxy, $C_{1-3}$alkyl, $C_{1-3}$alkoxy, -$CO_2$H, -$CO_2$-$C_{1-6}$ alkyl, and trifluoromethyl;

$R^1$ is selected from:

-$C_{1-6}$alkyl, -$C_{0-6}$alkyl-O-$C_{1-6}$alkyl, -$C_{0-6}$alkyl-S-$C_{1-6}$alkyl, -$C_{0-6}$alkyl-$SO_{1-2}$-$C_{1-6}$alkyl, -$C_{0-6}$alkyl-$SO_2$-$NR^{26}$-$C_{1-6}$alkyl, -($C_{0-6}$alkyl)-($C_{3-7}$cycloalkyl)-($C_{0-6}$alkyl), hydroxy, -$CO_2R^{20}$, heterocycle, -CN, -$NR^{20}R^{26}$, -$NR^{26}SO_2R^{20}$, -$NR^{26}COR^{21}$, -$OCOR^{20}$, and phenyl,

where $R^{26}$ is selected from: hydrogen, $C_{1-6}$ alkyl, benzyl, phenyl, $C_{3-6}$ cycloalkyl where the alkyl, phenyl, benzyl, and cycloalkyl groups can be unsubstituted or

substituted with 1-3 substituents where the substituents are independently selected from: halo, hydroxy, $C_{1-3}$alkyl, $C_{1-3}$alkoxy, -$CO_2H$, -$CO_2$-$C_{1-6}$ alkyl, and trifluoromethyl

where the alkyl and the cycloalkyl are unsubstituted or substituted with 1-7 substituents where the substituents are independently selected from: halo, hydroxy, -O-$C_{1-3}$alkyl, trifluoromethyl, $C_{1-3}$alkyl, -O-$C_{1-3}$alkyl, -$CO_2R^{20}$, -$SO_2R^{20}$, -$NHCOCH_3$, -$NHSO_2CH_3$, -heterocycle, =O, -CN,

and where the phenyl and heterocycle are unsubstituted or substituted with 1-3 substituents where the substituents are independently selected from: halo, hydroxy, $C_{1-3}$alkyl, $C_{1-3}$alkoxy and trifluoromethyl;

$R^2$ is selected from: hydrogen, $C_{1-6}$alkyl, trifluoromethyl, trifluoromethoxy, chloro, bromo, and phenyl;

$R^3$ is selected from: hydrogen, hydroxy, halo, $C_{1-6}$alkyl, -O-$C_{1-6}$alkyl, -$NR^{20}R^{21}$, -$NR^{20}CO_2R^{21}$, -$NR^{20}CONR^{20}R^{21}$, -$NR^{20}$-$SO_2$-$NR^{20}R^{21}$, -$NR^{20}$-$SO_2$-$R^{21}$, heterocycle, -CN, -$CONR^{20}R^{21}$, -$CO_2R^{20}$, -$NO_2$, -S-$R^{20}$, -SO-$R^{20}$, -$SO_2$-$R^{20}$, and -$SO_2$-$NR^{20}R^{21}$;

$R^4$ is selected from: hydrogen, $C_{1-6}$alkyl, trifluoromethyl, trifluoromethoxy, chloro, bromo, and phenyl;

$R^5$ is selected from: $C_{1-6}$alkyl substituted with 1-6 fluoro and optionally substituted with hydroxyl, -O-$C_{1-6}$alkyl substituted with 1-6 fluoro, -CO-$C_{1-6}$alkyl substituted with 1-6 fluoro, -S-$C_{1-6}$alkyl, -pyridyl, fluoro, chloro, bromo, and phenyl;

$R^6$ is selected from: hydrogen, $C_{1-6}$alkyl, trifluoromethyl, trifluoromethoxy, chloro, bromo, and phenyl;

$R^7$ is selected from: hydrogen, $C_{1-6}$alkyl, and trifluoromethyl;

$R^8$ is selected from: hydrogen, $C_{1-6}$alkyl, where alkyl may be unsubstituted or substituted with 1-6 substituents where the substituents are chosen from the group: fluoro,

$C_{1-3}$alkoxy, hydroxy, $-CO_2R^{20}$, fluoro, -O-$C_{1-3}$alkyl, where alkyl may be unsubstituted or substituted with 1-3 fluoro, and $C_{3-6}$ cycloalkyl, -O-$C_{3-6}$cycloalkyl, hydroxy, $-CO_2R^{20}$, $-OCOR^{20}$, phenyl,

or $R^7$ and $R^8$ may be joined together via a $C_{2-4}$alkyl or a $C_{0-2}$alkyl-O-$C_{1-3}$alkyl chain to form a 5-7 membered ring;

$R^9$ is selected from: hydrogen, $C_{1-6}$alkyl, where alkyl may be unsubstituted or substituted with 1-6 substituents where the substituents are chosen from the group: fluoro, $C_{1-3}$alkoxy, hydroxy, $-CO_2R^{20}$, $CO_2R^{20}$, hydroxy, and -O-$C_{1-6}$alkyl, where alkyl may be unsubstituted or substituted with 1-6 substituents where the substituents are chosen from the group: fluoro, $C_{1-3}$alkoxy, hydroxy, $-CO_2R^{20}$,

or $R^8$ and $R^9$ may be joined together by a $C_{1-4}$alkyl chain or a $C_{0-3}$alkyl-O-$C_{0-3}$alkyl chain to form a 3-6 membered ring;

$R^{10}$ is selected from: hydrogen, and $C_{1-6}$alkyl, where alkyl may be unsubstituted or substituted with 1-6 fluoro, fluoro, -O-$C_{3-6}$cycloalkyl, and -O-$C_{1-3}$alkyl, where alkyl may be unsubstituted or substituted with 1-6 fluoro,

or $R^8$ and $R^{10}$ may be joined together by a $C_{1-3}$alkyl chain or a single bond to form a 3-6 membered ring; where the alkyl are unsubstituted or substituted with 1-3 substituents where the substiuents are independently selected from: halo, hydroxy, $-CO_2R^{20}$, $C_{1-3}$alkyl, and $C_{1-3}$alkoxy,

or $R^8$ and $R^{10}$ may be joined together by a $C_{1-2}$alkyl-O-$C_{1-2}$alkyl chain to form a 6-8 membered ring, where the alkyl are unsubstituted or substituted with 1-3 substituents where the substiuents are independently selected from: halo, hydroxy, $-CO_2R^{20}$, $C_{1-3}$alkyl, and $C_{1-3}$alkoxy,

or $R^8$ and $R^{10}$ may be joined together by a –O-$C_{1-2}$alkyl-O- chain to form a 6-7 membered ring, where the alkyl are unsubstituted or substituted with 1-3 substituents where the substiuents are independently selected from: halo, hydroxy, $-CO_2R^{20}$, $C_{1-3}$alkyl, and $C_{1-3}$alkoxy;

$R^{11}$ is selected from: hydrogen, $C_{1-6}$alkyl, and trifluoromethyl;

$R^{27}$ and $R^{28}$ are independently selected from: =O, where $R^{27}$ , $R^{28}$ , or both, is oxygen and is connected via a double bond, hydrogen, phenyl, and $C_{1-6}$alkyl which may be substituted or unsubstituted with 1-6 of the following substituents: $-COR^{11}$, hydroxy, fluoro, chloro, $-O-C_{1-3}$alkyl;

$R^{29}$, $R^{30}$, and $R^{31}$ are independently selected from: hydrogen, methyl, hydroxyl, trifluoromethyl, methoxy, and trifluoromethoxy;

or $R^{29}$ and $R^9$ are connected by a $C_{1-3}$alkyl bridge;

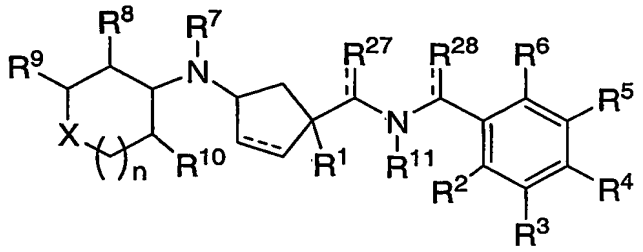
m is selected from 0, 1, and 2;

n is selected from 0, 1 and 2;

the dashed line represents a single or a double bond;

and pharmaceutically acceptable salts thereof and individual diastereomers thereof.

2. The compound of Claim 1 of the formula Ia:



Ia

and pharmaceutically acceptable salts and individual diastereomers thereof.

3. The compound of Claim 1 wherein:

X is selected from the group consisting of: -O-, and $-CH_2-$.

4. The compound of Claim 1 wherein X is -O-.

5. The compound of Claim 1 wherein $R^1$ is selected from:

(1) $-C_{1-6}$alkyl, which is unsubstituted or substituted with 1-6 substituents where the substituents are independently selected from: halo, hydroxy, $-O-C_{1-3}$alkyl, and trifluoromethyl,

(2) -$C_{0-6}$alkyl-O-$C_{1-6}$alkyl-, which is unsubstituted or substituted with 1-6 substituents where the substituents are independently selected from: halo, and trifluoromethyl,

(3) -$C_{0-6}$alkyl-S-$C_{1-6}$alkyl-, which is unsubstituted or substituted with 1-6 substituents where the substituents are independently selected from: halo, and trifluoromethyl,

(4) -($C_{3-5}$cycloalkyl)-($C_{0-6}$alkyl), which is unsubstituted or substituted with 1-7 substituents where the substituents are independently selected from: halo, hydroxy, -O-$C_{1-3}$alkyl, and trifluoromethyl.

6. The compound of Claim 1 wherein $R^1$ is $C_{1-6}$alkyl which is unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from: hydroxy, and fluoro.

7. The compound of Claim 1 wherein:
$R^1$ is selected from: isopropyl, -CH(OH)$CH_3$, and -$CH_2CF_3$.

8. The compound of Claim 1 wherein:
$R^2$ is selected from: hydrogen, hydroxy, trifluoromethyl.

9. The compound of Claim 1 wherein:
$R^2$ is selected from: hydrogen, and hydroxy.

10. The compound of Claim 1 wherein:
$R^3$ is selected from: $C_{1-6}$alkyl unsubstituted or substituted with 1-6 fluoro, fluoro, chloro, bromo.

11. The compound of Claim 1 wherein:
In the present invention it is more preferred that $R^3$ is selected from: trifluromethyl, cyclopropyl, fluoro.

12. The compound of Claim 1 wherein:
$R^5$ is selected from: $C_{1-6}$alkyl unsubstituted or substituted with 1-6 fluoro, fluoro, chloro, bromo.

13. The compound of Claim 1 wherein:
$R^5$ is selected from: trifluromethyl, cyclopropyl, and fluoro.

14. The compound of Claim 1 wherein:
$R^5$ is trifluoromethyl.

15. The compound of Claim 1 wherein $R^6$ is hydrogen.

16. The compound of Claim 1 wherein $R^7$ is hydrogen.

17. The compound of Claim 1 wherein $R^8$ is selected from: hydrogen, $C_{1-3}$alkyl, which is unsubstituted or substituted with 1-6 fluoro, -O-$C_{1-3}$alkyl, fluoro, and hydroxy.

18. The compound of Claim 1 wherein $R^8$ is selected from: hydrogen, methyl, ethyl, trifluoromethyl, fluoro, and -O-$CH_3$.

19. The compound of Claim 1 wherein $R^9$ is hydrogen and $R^{10}$ is hydrogen.

20. The compound of Claim 1 wherein $R^8$ and $R^{10}$ are joined together by a -$CH_2CH_2$- chain or a -$CH_2CH_2CH_2$- chain to form a cyclopentyl ring or a cyclohexyl ring.

21. The compound of Claim 1 wherein $R^{27}$ is =O, where $R^{27}$ is oxygen and is connected via a double bond.

22. The compound of Claim 1 wherein $R^9$ and $R^{29}$ are joined together by a $C_{1-3}$alkyl chain to form a ring.

23. The compound of Claim 1 wherein $R^{29}$ is hydrogen, $R^{30}$ is hydrogen, and $R^{31}$ is hydrogen.

24. A compound which is selected from the group consisting of the title compounds of the Examples, and pharmaceutically acceptable salts and individual diastereomers thereof.

25. A pharmaceutical composition which comprises an inert carrier and a compound of Claim 1.

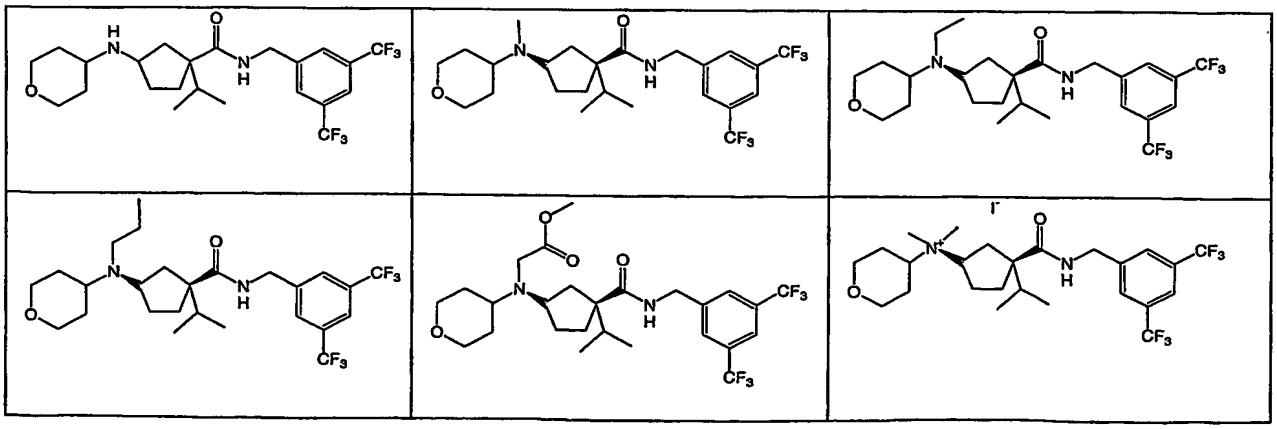
26. A method for modulation of chemokine receptor activity in a mammal in need thereof which comprises the administration of an effective amount of the compound of Claim 1.

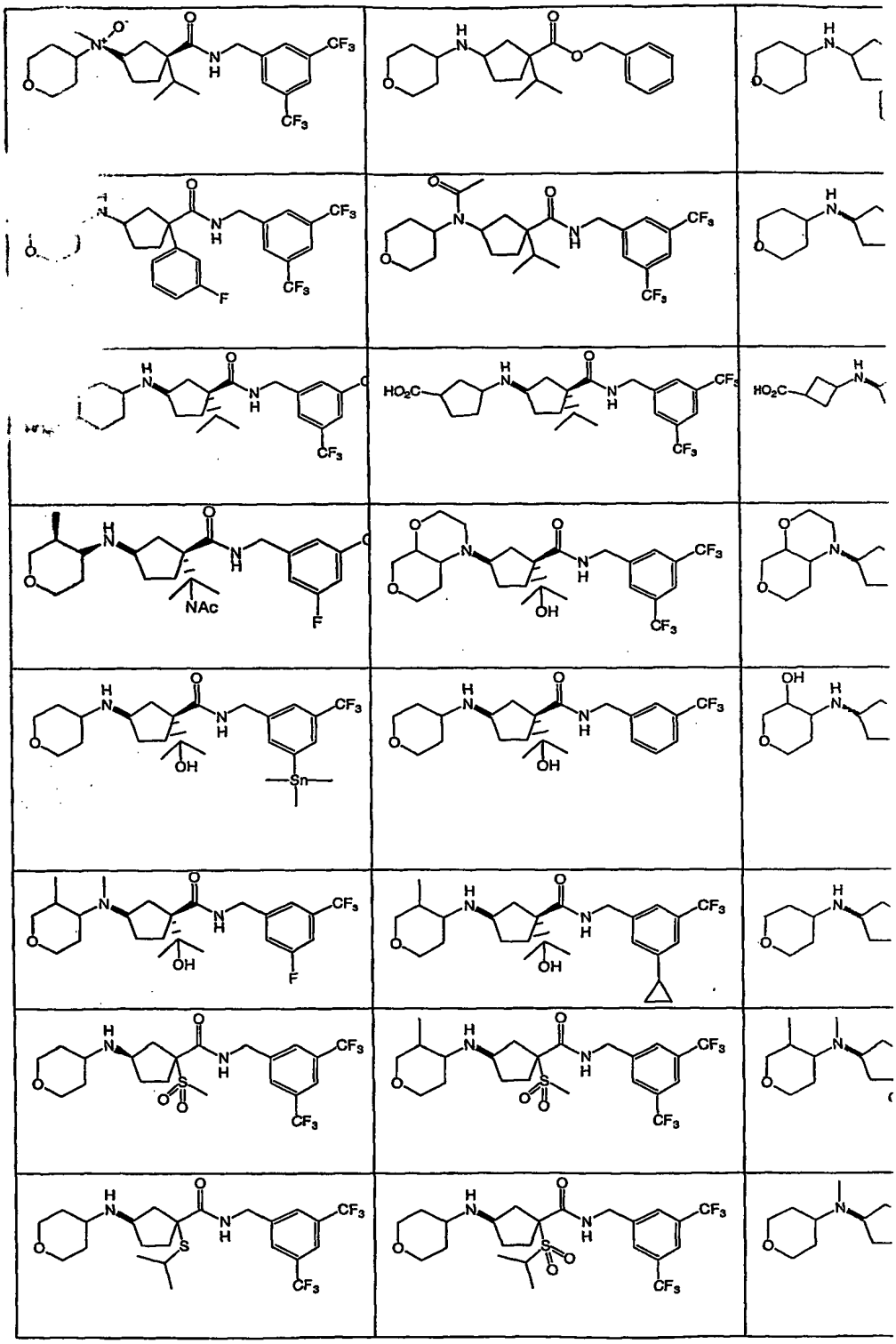
27. A method for treating, ameliorating or controlling an inflammatory or immunoregulatory disorder or disease which comprises administering to a patient in need thereof an effective amount of the compound of Claim 1.

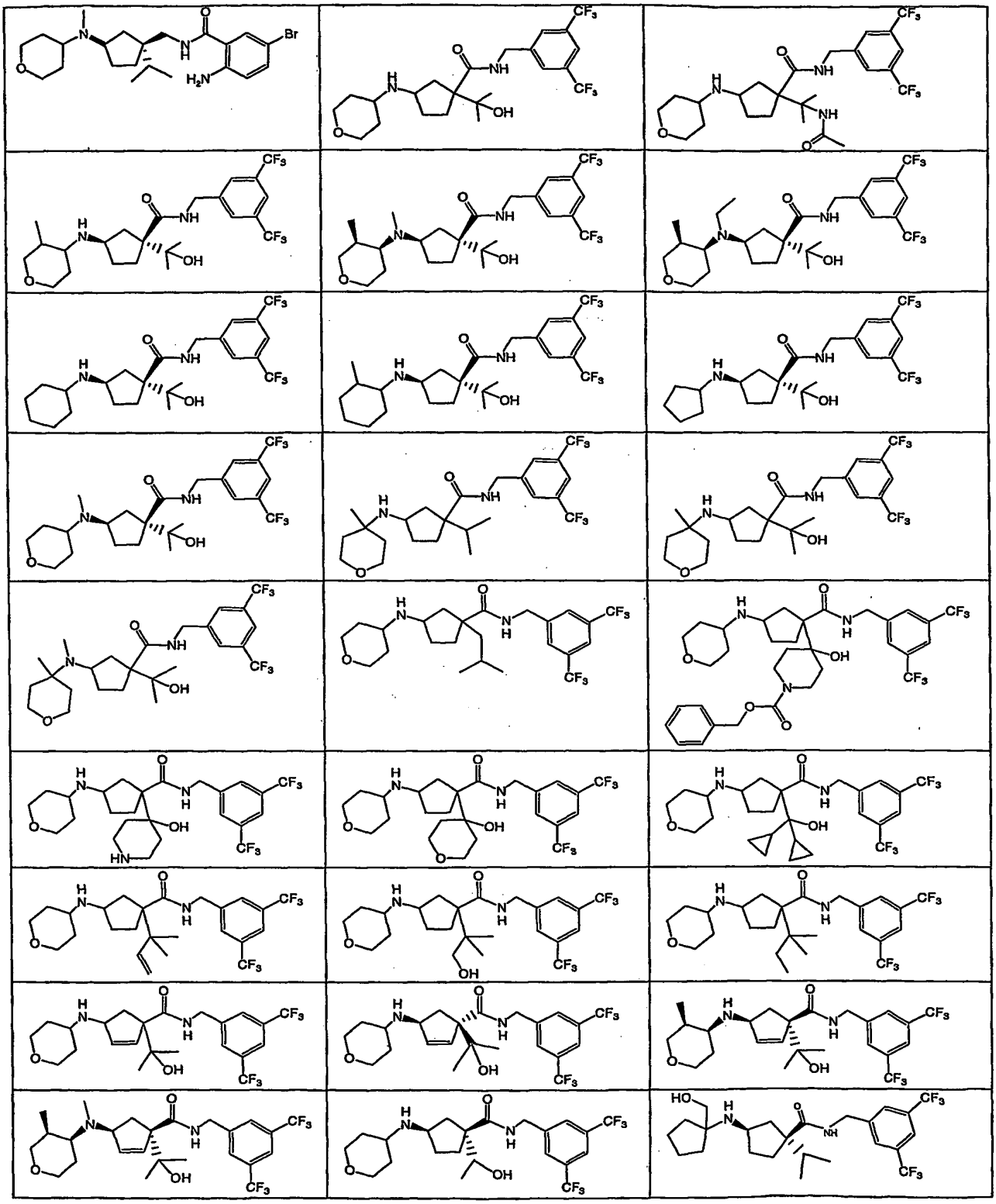
28. A method for reducing the risk of an inflammatory or immunoregulatory disorder or disease which comprises administering to a patient in need thereof an effective amount of the compound of Claim 1.

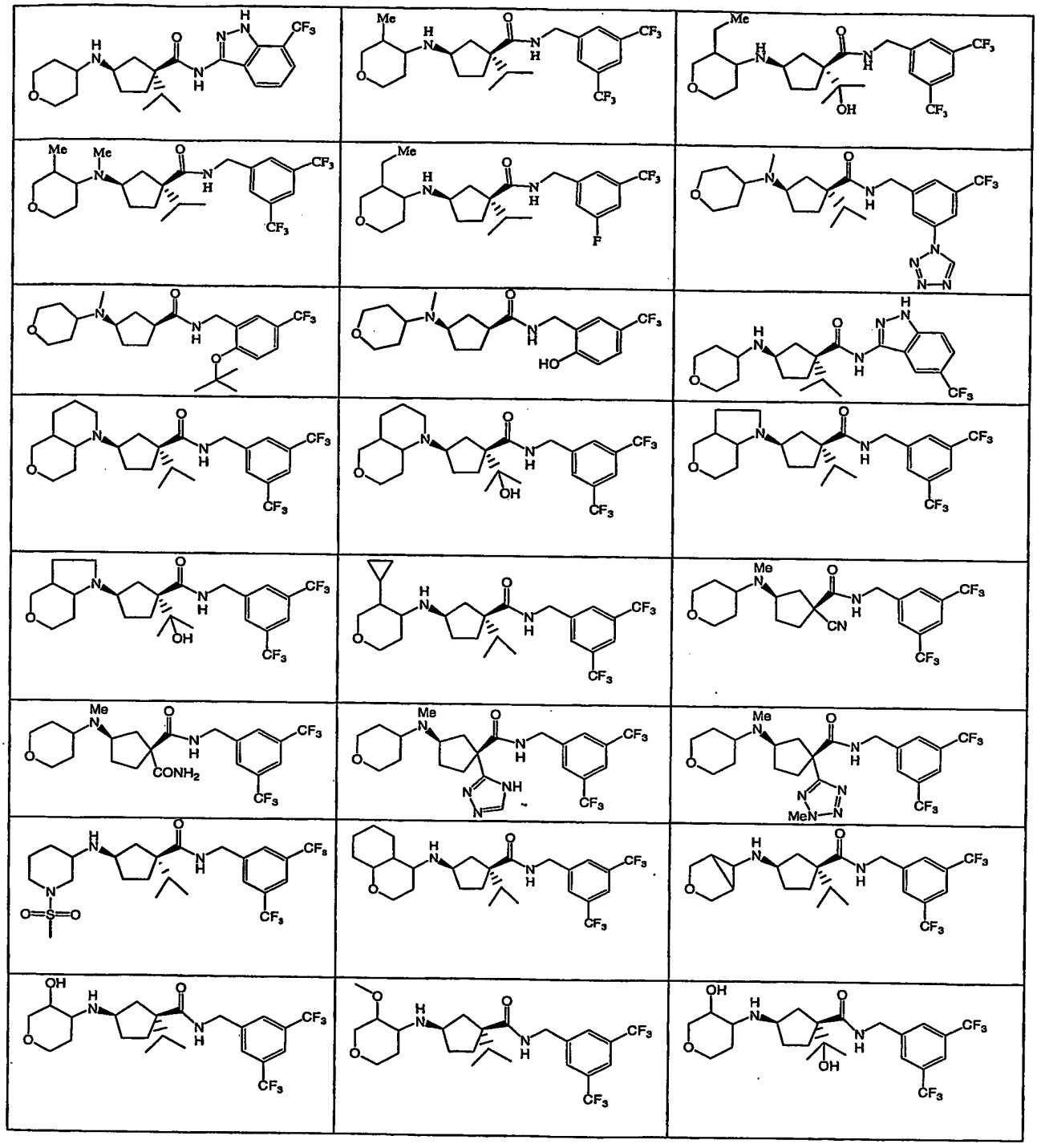
29. A method for treating, ameliorating or controlling rheumatoid arthritis which comprises administering to a patient in need thereof an effective amount of the compound of Claim 1.

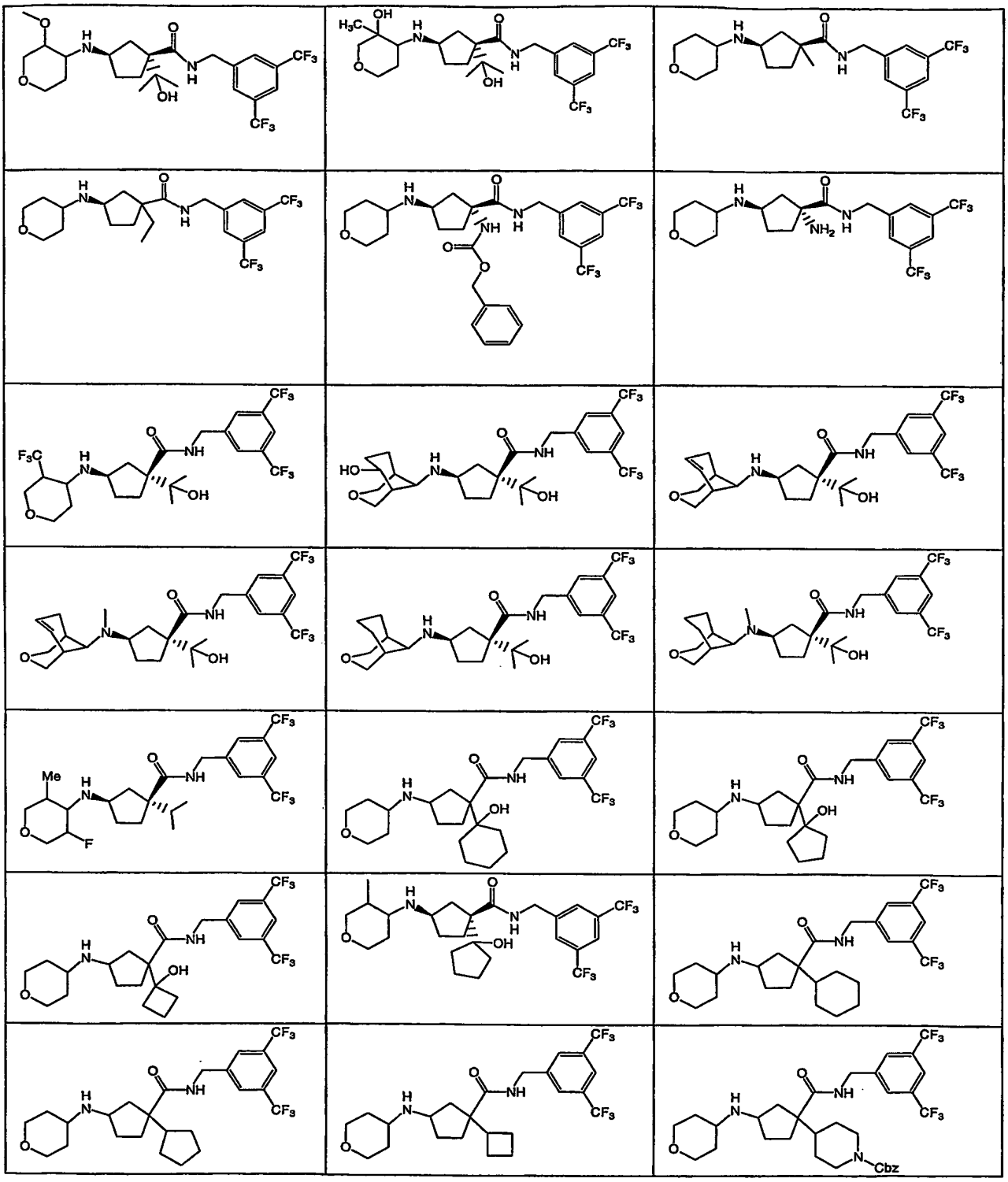
30. A compound which is selected from the group consisting of:

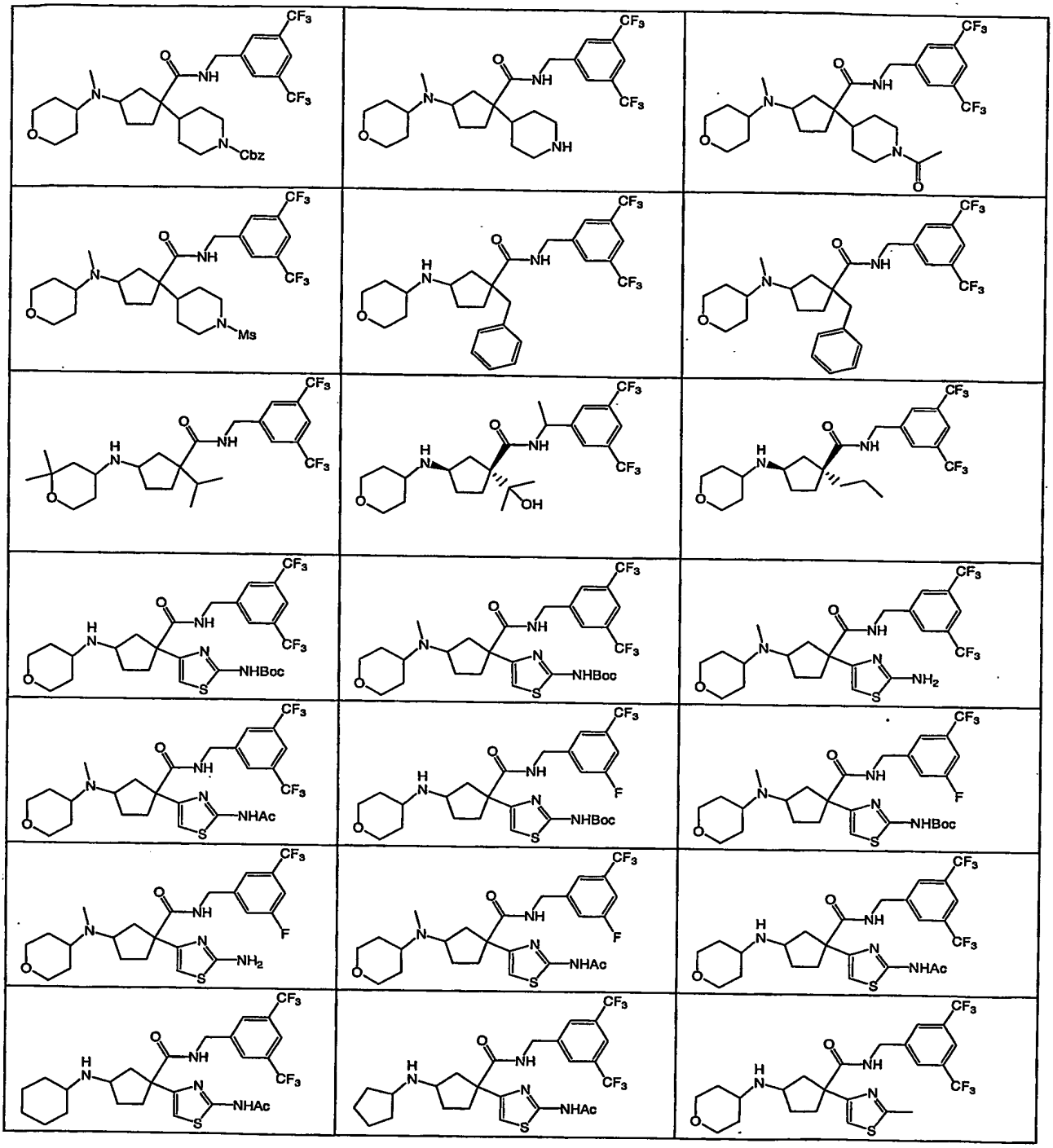


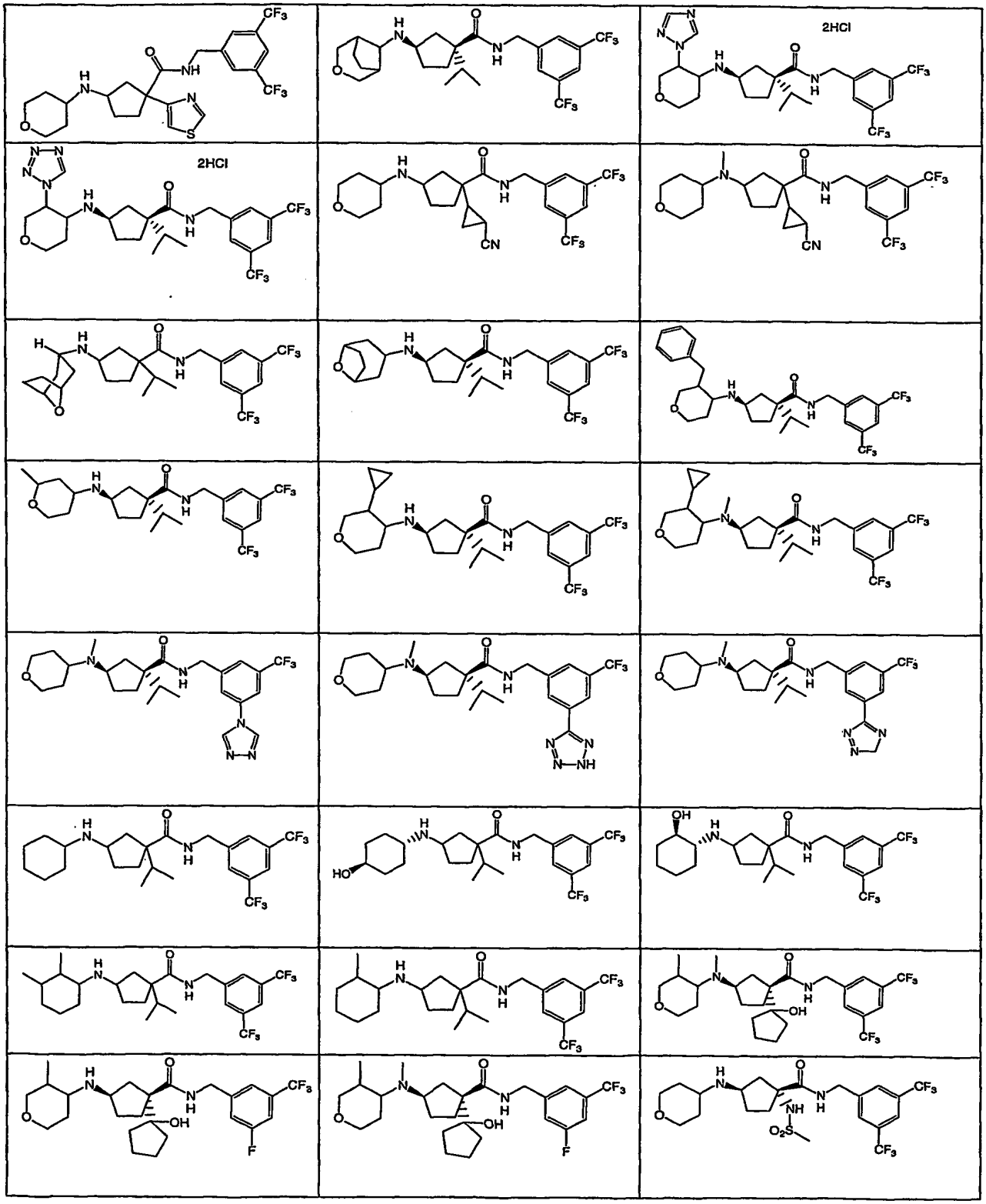


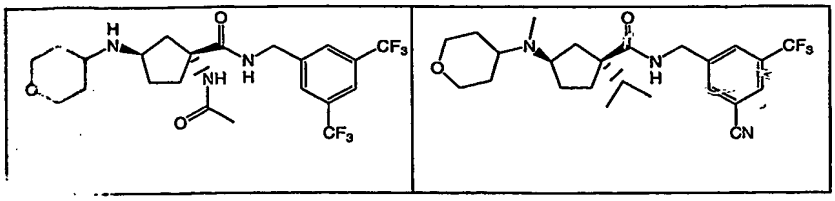






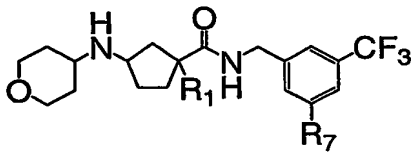

CF3
O
NH
N
Cbz
NH
Ms
H
OH
NHBoc
NH2
NHAc
F


2HCl
2HCl

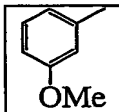
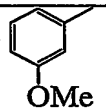
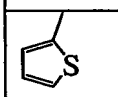
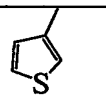
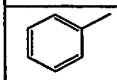
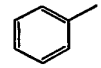


and pharmaceutically acceptable salts thereof and individual diastercomers thereof.

31. A compound of the formula:

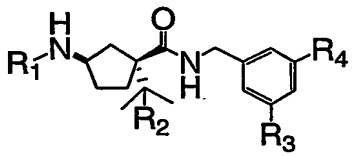


wherein $R_7$ is F or $CF_3$, and wherein $R_1$ is selected from:

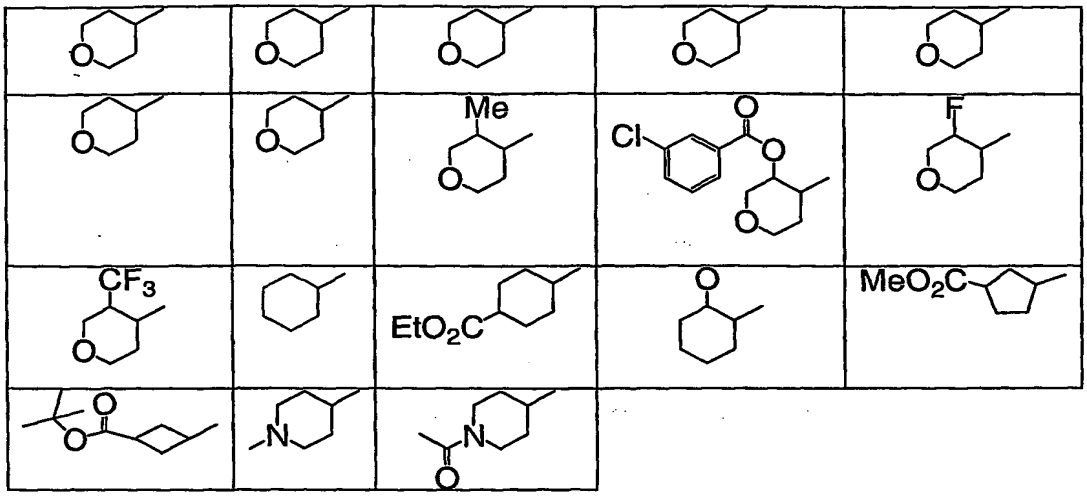
| | | |
|---|---|---|
|  |  |  |
|  |  |  |
|  |  | |

and pharmaceutically acceptable salts thereof and individual diastercomers thereof.

32. A compound of the formula:

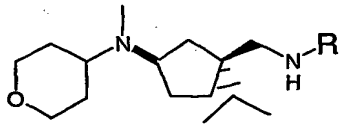


wherein $R_2$ is H or OH, wherein $R_3$ is F or $CF_3$, wherein $R_4$ is $CF_3$, Ph, $OCF_3$, Cl, or  , and wherein $R_1$ is selected from:

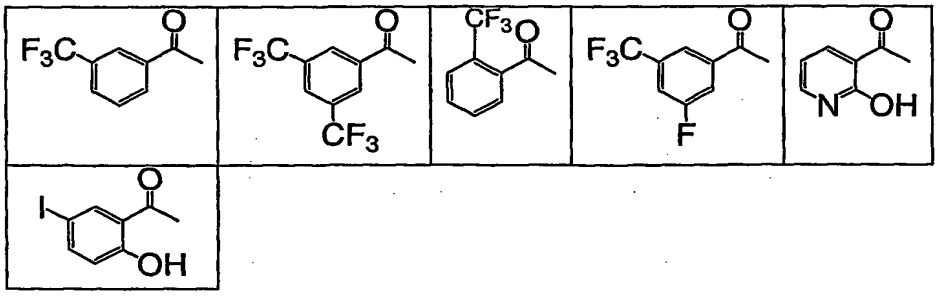


and pharmaceutically acceptable salts thereof and individual diastercomers thereof.

33. A compound of the formula:

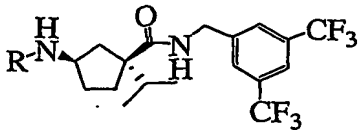


wherein R is selected from:

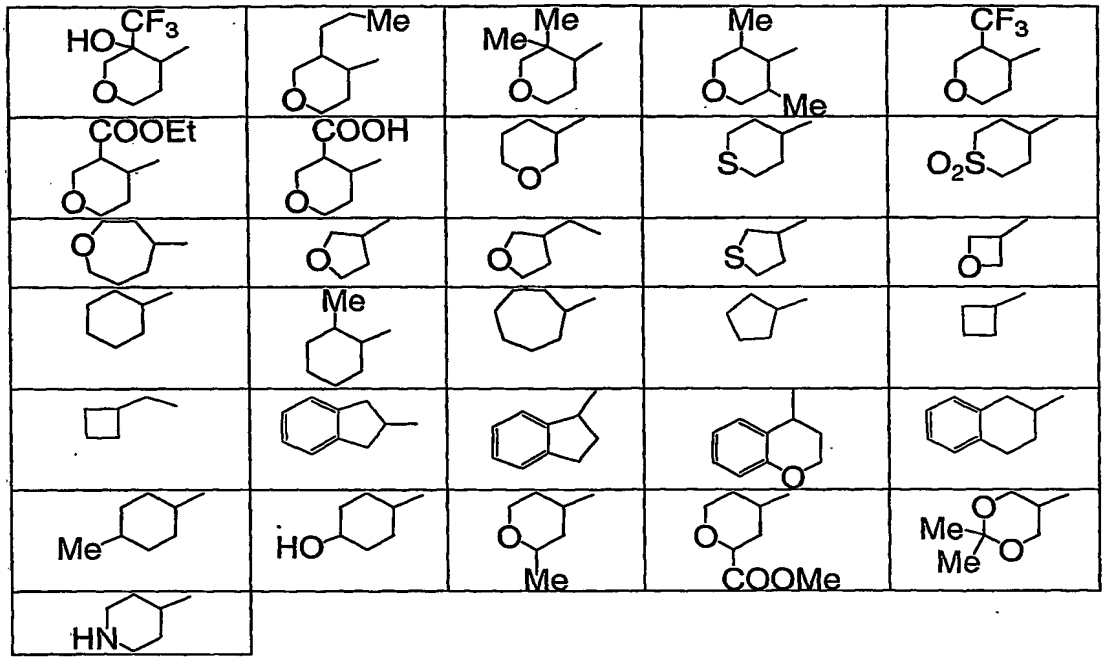


and pharmaceutically acceptable salts thereof and individual diastercomers thereof.

34. A compound of the formula:

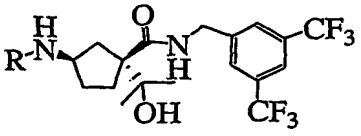


wherein R is selected from:

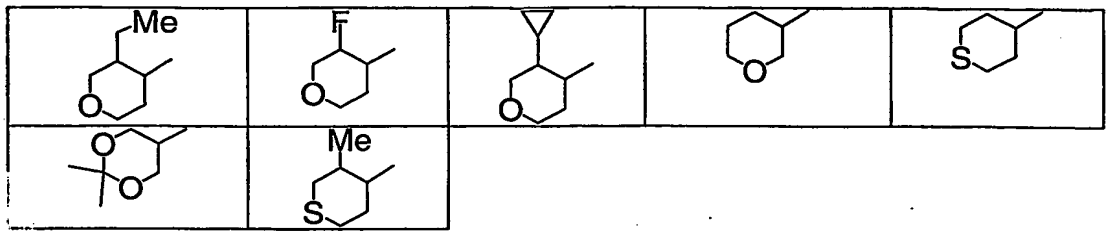


and pharmaceutically acceptable salts thereof and individual diastercomers thereof.

35. A compound of the formula:

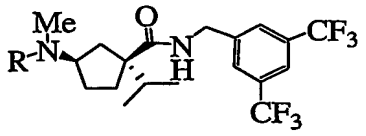


wherein R is selected from:

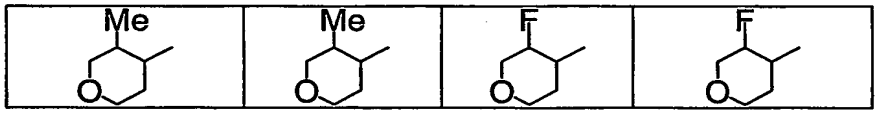


and pharmaceutically acceptable salts thereof and individual diastercomers thereof.

36. A compound of the formula:



wherein R is selected from:



and pharmaceutically acceptable salts thereof and individual diastercomers thereof.